

**Roldan, Lizette**

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**From:** Roldan, Lizette  
**Sent:** Friday, August 26, 2011 1:55 PM  
**To:** 'lbarrow@ninyoandmoore.com'  
**Subject:** REQUEST FOR ADDITIONAL INFORMATION REGARDING NEW LICENSE APPLICATION CONTROL 575859

License No.: 04-29430-01  
Docket No.: 030-38478  
Control No.: 575859

Dear Ms. Barrow:

This is in reference to your application dated August 15, 2011 requesting a Nuclear Regulatory Commission License 04-29430-01. In order to continue our review, we need the following information:

1. Please establish a maximum possession limit for the gauges you currently have and may possess in the future. The maximum possession limit is a factor of the number of gauges/sources you possess or wish to possess and the activity per source. For example, if you currently have 3 gauges with 10 millicuries of Cesium-137 and 50 millicuries of Americium-241, your maximum possession limit for Cesium-137 is 30 millicuries (3 X 10 millicuries) and 150 millicuries for Americium-241 (3 X 50 millicuries). Please note you may increase the maximum possession limit to allow for the purchase of future gauges.
2. Please propose the individual that will serve as the Radiation Safety Officer (RSO) and provide documentation to show that this individual has the required training. I noticed in your cover letter that you are listed as RSO; however, in the body of the application under the section RSO you did not name an individual.

We will continue our review upon receipt of this information. Please reply to my attention at the Region IV Office and refer to Mail Control No. 575859. Please respond to this e-mail by September 23, 2011. You may reply via e-mail or by fax to 817-860-8263.

Thanks,

***Lizette Roldán-Otero, Ph.D.***

Health Physicist  
Nuclear Regulatory Commission  
612 E. Lamar Blvd., Suite 400  
Arlington, TX 76011  
Office: 817-276-6596  
Fax: 817-860-8263

License 04-29430-01  
Docket 030-38478

**Roldan, Lizette**

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**From:** Lydia Barrow [lbarrow@ninyoandmoore.com]  
**Sent:** Tuesday, August 30, 2011 10:50 AM  
**To:** Roldan, Lizette  
**Subject:** RE: REQUEST FOR ADDITIONAL INFORMATION REGARDING NEW LICENSE APPLICATION CONTROL 575859  
**Attachments:** New License Application Request for Info.pdf

Lizette,

Sorry for my late response, I was on vacation last week. Please find attached the requested information. I will be the RSO in charge of the new license. I have attached my certs to this email as well as a copy of our radioactive materials license.

Thanks,

Lydia Barrow  
Senior Staff Engineer  
**Ninyo & Moore**  
Geotechnical & Environmental Sciences Consultants  
1956 Webster Street, Suite 400  
Oakland, California 94612  
(510) 633-5640  
(510) 633-5646 (Fax)  
[lbarrow@ninyoandmoore.com](mailto:lbarrow@ninyoandmoore.com)

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AUG 30 2011

DNMS

**Roldan, Lizette**

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**From:** Lydia Barrow [lbarrow@ninyoandmoore.com]  
**Sent:** Tuesday, August 30, 2011 12:50 PM  
**To:** Roldan, Lizette  
**Subject:** RE: REQUEST FOR ADDITIONAL INFORMATION REGARDING NEW LICENSE APPLICATION CONTROL 575859

Lizette,

For the Troxler and CPN gauges, please use what is stipulated on our CA Radioactive License. Please let me know have any additional questions.

Thanks!

Lydia Barrow  
Senior Staff Engineer  
**Ninyo & Moore**  
Geotechnical & Environmental Sciences Consultants  
1956 Webster Street, Suite 400  
Oakland, California 94612  
(510) 633-5640  
(510) 633-5646 (Fax)  
[lbarrow@ninyoandmoore.com](mailto:lbarrow@ninyoandmoore.com)

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No. 575859

**RADIOACTIVE MATERIAL LICENSE**

*Pursuant to the California Code of Regulations, Division 1, Title 17, Chapter 5, Subchapter 4, Group 2, Licensing of Radioactive Material, and in reliance on statements and representations heretofore made by the licensee, a license is hereby Issued authorizing the licensee to receive, use, possess, transfer, or dispose of radioactive material listed below; and to use such radioactive material for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules, regulations, and orders of the California Department of Public Health now or hereafter in effect and to any standard or specific condition specified in this license.*

1. Licensee: Ninyo & Moore	3. License Number: 6750-01 Amendment Number: 6
2. Address: 1956 Webster St, Suite 400 Oakland, CA 94612	4. Expiration Date: March 20, 2017 (5)
Attention: Lydia L. Barrow Radiation Safety Officer	5. Inspection Agency: Radiologic Health Branch North

**In response to the letter with attachments, dated May 25, 2011, signed by Dustin E. Rath, P.E., Senior Project Engineer, License Number 6750-01 is hereby amended as follows:**

6. Nuclide	7. Form	8. Possession Limit
A. Cesium-137 Americium-241/Be	A. Sealed Sources (HIS Dwg.- 2200064 and HIS Dwg-2200067)	A. 1 source pair not to exceed 11 millicuries Cs-137 and 44 millicuries Am-242/Be.
B. Cesium-137 Americium-241/Be	B. Sealed Sources (Troxler Dwg. No. A-102112 and A-102451)	B. 10 source pairs not to exceed 9 millicuries Cs-137 and 44 millicuries Am-242/Be.
C. Cesium-137 Americium-241/Be	C. Sealed Sources (Model CPN-131)	C. 2 source pairs not to exceed 10 millicuries Cs-137 and 50 millicuries Am-241/Be.

**9. Authorized Use**

- A. To be used as components of gauges, Humboldt Scientific Inc, Model 5000 series, for determination of density and moisture measurement of building materials.
- B. To be used as components of gauges Troxler Electronics, Inc, Model 3400 series (excluding Models 3430-M and 3440-M) for the determination of density and moisture of building materials.
- C. To be used as a components of CPN International Model MC and 500 Series gauge for the determination of density and moisture measurement of building materials.

**LICENSE CONDITIONS**

10. Radioactive materials may be used at temporary job sites of the licensee in areas not under exclusive federal jurisdiction throughout the State of California (see Condition 23). Radioactive materials may be permanently stored only at:
  - (a) 1956 Webster St. Suite 400, Oakland CA.
11. This license is subject to an annual fee for sources of radioactive material authorized to be possessed at any one time as specified in Items 6, 7, 8 and 9 of this license. The annual fee for this license is required by and computed in accordance with Title 17, California Code of Regulations, Sections 30230-30232 and is also subject to an annual cost-of-living adjustment pursuant to Section 100425 of the California Health and Safety Code.
12. Radioactive material may be used only by, or under the supervision and in the physical presence of, individuals who:
  - (a) Have satisfactorily completed a course, accepted by the Department as adequate, in safe use of soil/asphalt content gauges containing radioactive material and also;

**RADIOACTIVE MATERIAL LICENSE**License Number: 6750-01Amendment Number: 6

- (b) Have been provided with a statement, signed by the Radiation Safety Officer, which designates that individual as an authorized user qualified to use radioactive material under this license. Copies of these documents shall be maintained for inspection by the Department.
13. Except as specifically provided otherwise by this license, the licensee shall possess and use radioactive material described in Items 6, 7, 8 and 9 of this license in accordance with the statements, representations, and procedures contained in the documents listed below. The Department's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.
- (a) The renewal application with attachments dated March 20, 2007, signed by Peter Connolly, Senior Engineer.
- (b) The letter with attachments dated October 16, 2008, signed by Mark R. Caruso, P.G.P.G., C.E.G., regarding the appointment of Dustin Roth as Radiation Safety Officer.
- (c) **The letter with attachments, dated June 14, 2011, signed by Lydia L. Barrow, Radiation Safety Officer, regarding the Duties and Responsibilities and the Delegation of Authority of the Radiation Safety Officer, and an updated emergency contact list.**
14. The Radiation Safety Officer in this program shall be **Lydia L. Barrow**.
15. Sealed sources contained in Humboldt and Troxler soil/asphalt gauges shall be tested for leakage and/or contamination at intervals not to exceed 12 months.
16. The following individuals are authorized to collect wipe test samples of sealed sources possessed under this license using leak test kits acceptable to the California Department of Public Health:
- (a) The Radiation Safety Officer
- (b) Qualified individuals designated in writing by the Radiation Safety Officer
17. Quantitative analytical assays for the purpose of tests for leakage and/or contamination of sealed sources shall be performed only by persons specifically authorized to perform that service.
18. Records of leak test results shall be kept in units of microcuries and maintained for inspection. Records may be disposed of following Department inspection. Any leak test revealing the presence of 0.005 microcuries or more of removable radioactive material shall be reported to the California Department of Public Health, Radiologic Health Branch MS 7610, P.O. Box 997414, Sacramento, CA 95899-7414, within five days of the test. This report shall include a description of the defective source or device, the results of the test, and the corrective action taken.
19. Maintenance and repair of soil/asphalt content gauges shall be performed only by persons specifically authorized to perform those services.
20. At any time the licensee is engaged in making measurements by authority of this license at either a permanent or temporary job site, the licensee shall have a current copy of each of the following documents available for inspection at the job site:
- (c) A statement authorizing each qualified individual to use radioactive material (See Condition 12).
- (d) This license.
- (e) The manufacturer's instruction manual with appropriate emergency procedures.
21. The licensee shall comply with all requirements of Title 17, California Code of Regulations, Section 30373 when transporting or delivering radioactive materials to a carrier for shipment. These requirements include; packaging, marking, labeling, loading, storage, placarding, monitoring, and accident reporting. Shipping papers shall be maintained for inspection pursuant to the U.S. Department of Transportation requirements (Title 49, Code of Federal Regulations, Part 172. Sections 172.200 through 172.204).

**RADIOACTIVE MATERIAL LICENSE**License Number: 6750-01Amendment Number: 6

22. The licensee shall conduct a physical inventory every six months to account for all sealed sources and/or devices received and possessed under the license. Records of the inventories shall be maintained for inspection, and may be disposed of following Department inspection.
23. Before radioactive materials may be used at a temporary job site at any federal facility, the jurisdictional status of the job site must be determined. If the jurisdictional status is unknown, the federal agency should be contacted to determine if the job site is under exclusive federal jurisdiction. A response shall be obtained in writing or a record made of the name and title of the person at the federal agency who provided the determination and the date that it was provided. Authorization for use of radioactive materials at the job sites under exclusive federal jurisdiction shall be obtained either by:
- (a) Filing an NRC Form-241 in accordance with the Code of Federal Regulations, Title 10, Part 150.20 (b), "Recognition of Agreement State Licenses", or
  - (b) By applying for a specific NRC license.
- Before radioactive material can be used at a temporary job site in another State, authorization shall be obtained from the State if it is an Agreement State, or from the NRC for any non-Agreement State, either by filing for reciprocity or applying for a specific license.
24. The Radiation Safety Officer shall establish measures for the security of devices possessed and transported under authority of this license. The Radiation Safety Officer shall ensure security measures required by this license meet the following minimum standards:
- (a) Transport vehicles must be equipped to provide security of the transport case. The method selected must provide for a fixed and permanent attachment to vehicle frame. When secondary containers are used for the Type A package they shall be attached to the vehicle with the use of a tamper resistant fasteners to the frame of the transport vehicle.
  - (b) A minimum of two locks shall be placed between radioactive sources and the public when the device is being transported, in addition to the locks securing the Type A package to the vehicle.
  - (c) Transport vehicles must be equipped with a security device (such as an alarm system) capable of deterring unauthorized entry, access and use of the vehicle.
  - (d) Local law enforcement shall be notified immediately in the event of loss or theft.
25. At least 30 days prior to vacating any address of use listed in Condition 10 of this license, the licensee shall provide written notification thereof to the California Department of Public Health, in accordance with Title 17, California Code of Regulations, Section 30256 (b).
26. The licensee will provide the Low Level Radioactive Waste (LLRW) reports specified in the California Health and Safety Code section 115000.1(h) to the California Department of Public Health (CDPH) on an annual basis for both shipped and stored LLRW. Alternatively, LLRW shipment information may be provided on a per shipment basis. LLRW shipment information and annual reports shall be mailed to:

Attn: LLRW Tracking Program  
California Department of Public Health  
Radiologic Health Branch MS 7610  
P.O. Box 997414  
Sacramento, CA 95899-7414

**RADIOACTIVE MATERIAL LICENSE**

License Number: 6750-01

Amendment Number: 6

27. A copy of this license and a copy of all records and documents pertaining to this license shall be maintained available for inspection at 1956 Webster St. Suite 400, Oakland CA.

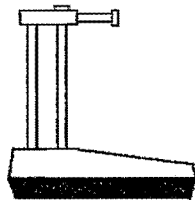
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Issued for the California Department of Public Health

Date: July 7, 2011

By: 

Lauren Labbé  
Chief, Industrial and GLD Licensing Unit  
Radiologic Health Branch  
MS 7610, P.O. Box 997414  
Sacramento, CA 95899-7414



# NUCLEAR GAUGE OPERATOR TRAINING



This is to certify that

## Lydia Barrow

has successfully completed an eight hour user's course, as required by the United States Nuclear Regulatory Commission and the Agreement States, in the Fundamentals of Radiation Safety and Gauge Operation, for the use of portable moisture density gauges. The course covered:

*Atomic Physics  
Radiation Safety  
Dose/Shielding Calculations  
Accidents/Storage*

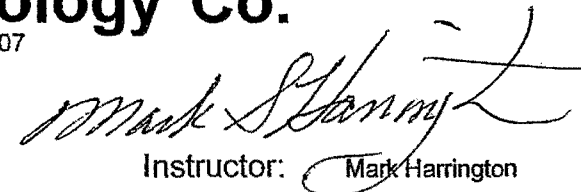
*HAZMAT Transportation  
Risk  
ALARA  
Measurement Theory*

*Operation  
Field Applications  
Calibration  
Maintenance*

## Pacific Nuclear Technology Co.

California License Number 5634-07

Date: September 29, 2009  
Certificate Number: 16451

  
Instructor: Mark Harrington

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№ 575859



*RADIATION  
SAFETY OFFICER  
TRAINING*



This is to certify that

*Lydia L. Barrow*

has successfully completed a four hour Radiation Safety Officer seminar, for the use of portable nuclear devices. The seminar covered:

*Duties and Responsibilities  
Radiation Safety Review  
Regulations Review  
Radiation Safety Plan*

*Storage Design  
Survey Meter Measurements  
ALARA Responsibilities  
Working Documents*

*Emergency Response  
Records  
Inspections  
Check List*

**Pacific Nuclear Technology Co.**

California License Number 5634-07

Date: November 30, 2009, 16461  
Certificate Number:

*Mark S. Young*  
Instructor:

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